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Notice of Allowability	Application No.	Applicant(s)	
	09/434,082	RYAN, KEVIN J.	
	Examiner	Art Unit	
	B. James Peikari	2186	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the RCE filed on August 3, 2004.
2. ☒ The allowed claim(s) is/are 5-8 and 29-71, now renumbered.
3. ☒ The drawings filed on 19 February 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Timothy B. Clise (#40,957) on September 7, 2004.

The application has been amended as follows:

- In claim 5, line 11, delete "directly connected to the separate bidirectional data bus".

2. The following is an examiner's statement of reasons for allowance:

With regard to the new claim language, the previous rejection did not merely rely on bus 18 to teach the command and address bus. With regard to claim 1, for example, "a unidirectional command and address bus" in line 3 was taught in the previous office action by the two bent arrows coming out of controller 70 in Figure 9 of Katayama et al., U.S. 5,875,452, although applicant's remarks filed on August 3, 2004 do not discuss this. As for the "command and address bus" in line 14, this was not specified as unidirectional, and so this section of the bus (on the other side of the command buffer) was taught by bus 18, as pointed out by applicant.

However, now that the claims have been amended, the section of the bus in line 14 must also be unidirectional, thus, bus 18 cannot be used, as pointed out by applicant in the remarks filed on August 3, 2004. However there is a unidirectional control line coming in to the command buffer "FROM MEMORY CONTROLLER 17" in Figure 9. It is clear that this bus carries control signals, but there is no explicit indication that address signals would be carried on this line. Consequently Katayama et al. no longer teaches this aspect of the claims and neither does Rosich et al., U.S. 5,587,964.

The examiner wishes to note, however, that there is a big difference between unidirectional in structure and unidirectional in practice. For example, a bus is usually just wire or fibers and has the innate ability to transmit data either way, even if the system that is using only sends the data in one direction. Because applicant relies so heavily on a *unidirectional* command and address bus for patentability, the scope of the claims only covers a command and address bus where a diode or rectifier or other hardware device is used to allow current flow in one direction and inhibit current flow in the other direction. Note the IEEE 100 standard for the definition of "unidirectional bus".

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Peikari whose telephone number is (703) 305-

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3824. The examiner is generally available between 8:00 am and 9:30 pm, EST, Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Kim, can be reached at (703) 305-3821.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 746-7239 (Official communications)

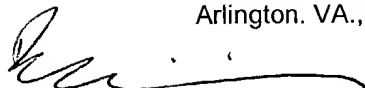
or:

(703) 746-7240 (for Informal or Draft communications)

or:

(703) 746-7238 (for After-Final communications)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).



B. James Peikari
Primary Examiner
Art Unit 2186

9/7/04